

**Notice of Allowability**

Application No.

09/724,296

Applicant(s)

DOETSCH ET AL.

Examiner

Malgorzata A. Walicka

Art Unit

1652

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to April 5, 2005.
2. ☒ The allowed claim(s) is/are 26-28.
3. ☒ The drawings filed on 18 September 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

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The Amendment under 37 C.F.R. 1.116 filed on April 5, 2005 is acknowledged. Claims 21-25 has been canceled and new claims 26-28 has been added. Claims 26-28 are the subject of this Office Action.

## **Office Action**

### **1. Rejections**

#### **1.1. 35 USC section 103**

Rejection of claims 21- 24 as being anticipated by Takao et al. (Nucleic Acid Res. **1996**, 24, 1267-1271) in view of Ford et al. (Fusion Tails for the Recovery and Purification of Recombinant Proteins. Protein Expression and Purification, **1991**, 2, 95-107 is moot, because the claims have been canceled.

#### **1.2. 35 USC, section 112, first paragraph**

##### **1.21. Lack of written description**

Rejection of claims 21-24 is moot because the claims have been canceled.

##### **1.2.2. Lack of enablement**

Rejection of claims 21-25 made in the previous Office Actions is moot because the claims have been canceled.

### **2. Examiner's amendment**

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

In claim 26, please cancel at the beginning of line 8 --selected from the group--.

Authorization for this examiner's amendment was given in a telephone interview with Donna Ferber on April 21, 2005.

#### **4. Allowance**

Claims 26-28 are allowed. As the examiner indicated in the Office Action of Oct. 5, 2004, Applicants disclose novel activities of the truncated form of the *S. pombe* endonuclease set forth by SEQ ID NOs: 4 and 6. Said activities are used in the method of cleavage a double-stranded DNA containing the following lesions: Dewar isomer of 6-4 photoproduct, abasic site, uracil, dihydrouracil, platinum-DNA GG diadduct, mismatched nucleotide, and loop of less than 5 nucleotides. The closest prior art is the article by Takao et al. (Nucleic Acid Res. **1996**, 24, 1267-1271). Takao et al. cloned *S. pombe* UVDE endonuclease, of which amino acids residues 229-599 are identical to SEQ ID NO: 4 of the instant application. Takao et al., however did not teach that the truncated form of their enzyme is specific for Dewar isomer of 6-4 photoproduct, abasic site, uracil, dihydrouracil (not recited by the claims), platinum-DNA GG diadduct,

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mismatched nucleotide, and loop of less than 5 nucleotides and for that reason it may be used in the method for cleavage of a double-stranded DNA molecule containing these lesions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malgorzata A. Walicka whose telephone number is (571) 272-0944. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 4:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on (571) 272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Malgorzata A. Walicka, Ph.D.

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Patent Examiner

  
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